3D VIRTUAL CELL

MARK YOUR CALENDARS:
DECEMBER 13-14, 2012 CONFERENCE

Toward the 3D Virtual Cell
UNIVERSITY OF CALIFORNIA, SAN DIEGO

Translational biology is faced with cyber-infrastructure challenges related to data accessibility, software development, software reuse and sustainability on scales not seen before. We are challenged to creating new algorithm development and analysis tools that can operate on an increasingly large, diverse, complex and widely distributed body of digital biological data.

WE ARE EXCITED TO HOST THE FOLLOWING SPEAKERS

Theodore Alexandrov, *Universität Bremen*
Chandrajit Bajaj, *University of Texas*
Chaitan Baru, *UC San Diego*
Donald Blumenthal, *University of Utah*
Blake Borgeson, *University of Texas, Austin*
Phil Bourne, *UC San Diego*
Wah Chiu, *Baylor College of Medicine*
Tim Clark, *Harvard University*
Phillip Compeau, *UC San Diego*
Markus Covert, *Stanford University*
Anita de Waard, *Elsevier*
Pieter Dorrestein, *UC San Diego*
Mark Ellisman, Ph.D., *UC San Diego*
Yolanda Gil, *USC*
James Glazier, *Indiana University*
David Goodsell, *The Scripps Research Institute*

Erich Huang, *Duke Institute for Genome Sciences & Policy*
Peter Hunter, *University of Auckland*
Graham Johnson, *UC San Francisco*
Peter Karp, *SRI International*
Thomas Knudsen, *EPA*
Eugene Kolker, *Seattle Children's Research Center*
Leslie Loew, *University of Connecticut Health Center*
Maryann Martone, *UC San Diego*
Andrew McCulloch, *UC San Diego*
Martin Meier-Schellersheim, *NIH*
Marcel Oberlaender, *Max Planck Institute for Biological Cybernetics*
Arthur Olson, *The Scripps Research Institute*

Lucila Ohno-Machado, *UC San Diego*
Bernhard Palsson, *UC San Diego*
Steven Peltier, *UC San Diego*
Ramesh Rao, *UC San Diego*
Bing Ren, *UC San Diego*
Daniel Russel, *UC San Francisco & Google*
Hebert Sauro, *University of Washington*
Terry Sejnowski, *UC San Diego*
Nigam Shah, *Stanford University*
James Sluka, *Indiana University*
Maciej Swat, *Indiana University*
Susan Taylor, *UC San Diego*
Wei Wang, , *UC San Diego*
Nancy Wilkins-Diehr, *UC San Diego*
Ross Whitaker, *University of Utah*

AREAS TO BE EXPLORED

- Structure-based modeling
- Visualization
- Whole cell modeling
- Pathway modeling
- Neurological modeling
- Ontologies and Tools for modeling
- Modeling big data
- Software engineering workflows for modeling
- New modes of education and dissemination

CONFERENCE OUTCOMES

- Recognizing the scientific challenges
- Identifying today's tools for cellular modeling
- Defining needed developments in algorithms, visualization, software paradigms, workflow development, education and more…

STEERING COMMITTEE

Philip Bourne, Ph.D. , PI, *UC San Diego*
Eugene Kolker, Ph.D. Co-PI, *Seattle Children's Research Center*
Peter Arzberger, PhD. , *UC San Diego*
Helen Berman, Ph.D. , *Rutgers University*
Donald Blumenthal, Ph.D., *University of Utah*
Mark Ellisman, Ph.D., *UC San Diego*
Andrew McCullough, Ph.D., *UC San Diego*
Bernhard Palsson, Ph.D., *UC San Diego*
Ramesh Rao, Ph.D., *UC San Diego*
Susan Taylor, Ph.D. , UC *San Diego*

REGISTER TODAY

itsb.ucsd.edu

NSF

UC San Diego